



FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS,
BALLOONS, & AIRSHIPS

BIWEEKLY 2000-09

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SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information

Biweekly 2000-01

99-27-02		Cessna	170B, 172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, +
99-27-12	S 99-26-13	Agusta	Rotorcraft: A109A and A109A II

Biweekly 2000-02

98-19-15 R1	R 98-19-15	Fairchild	SA226-T, SA226-T(B), SA226-AT, SA226-TC +
99-26-04		Kaman	Rotorcraft: K-1200
2000-01-06		Rolladen	Glider: LS6-c Sailplane
2000-01-09		General Electric	Engine: CJ610, CF700
2000-01-10	S 98-08-07	Pilatus	PC-7
2000-01-11	S 99-17-07	Eurocopter Deutschland	Rotorcraft: MBB-BK 117 A-1, A-3, A-4, B-1, B-2, C-1
2000-01-16	S 75-23-08 R5	Cessna	T310P, T310Q, T310R, 320, 320A, 320B, 320C, 320D +
2000-01-19		Eurocopter Deutschland	Rotorcraft: EC 135 P1, EC 135 T1
2000-02-12	E	Bell	Rotorcraft: 407

Biweekly 2000-03

2000-02-09		Agusta	Rotorcraft: AB412
2000-02-14	S 98-13-10	Cessna	182S
2000-02-16		Short Brothers	SC-7 Series 2 and SC-7 Series 3
2000-02-32	S 98-12-21	Eurocopter France	Rotorcraft: SA.315B

Biweekly 2000-04

99-25-08		MD Helicopters	Rotorcraft: 500N
2000-02-12		Bell	Rotorcraft: 407
2000-02-25		Mitsubishi	MU-2B Series
2000-02-26		Harbin	Y12 IV
2000-02-27		Empresa	EMB-110P1 and EMB-110P2
2000-02-28		Aerospace Technologies	N22B and N24A
2000-02-29		Socata	TBM 700
2000-02-30		Twin Commander	600 Series
2000-02-31		Pilatus	PC-12 and PC-12/45
2000-03-06		Eurocopter France	Rotorcraft: SE 3130, SA 3180, SE 313B, SA 318B, +
2000-03-17	S 97-23-01	Fairchild	SA226 and SA227 Series
2000-03-18		Partenavia	AP68TP 300 "Sartacus" and AP68TP 600 "Viator"
2000-03-19		Industrie Aeronautiche	Piaggio P-180
2000-04-01		Cessna	172R, 172S, 182S, 206H, and T206H
2000-04-10		Hoffmann	Propeller: HO27() and HO4/27 Series
2000-04-12		Cameron	Balloon: CB2380 and CB2383

Biweekly 2000-05

98-21-21	R1	Bob Fields Aerocessories	Appliance: Electric inflatable door seals
2000-03-09		Cessna	560 Series
2000-04-16		Alexander Schleicher	ASH 25M and ASH 26E sailplanes
2000-04-26		Alexander Schleicher	ASW-27 sailplanes
2000-05-11		Eurocopter France	Rotorcraft: SA.315B, SA.316B, SA.316C, SA 318B, +

Biweekly 2000-06

2000-04-20		Bell	Rotorcraft: 407
2000-04-21		MD Helicopters	Rotorcraft: MD600N
2000-04-25		Bell	Rotorcraft: 407
2000-05-15		Eurocopter France	Rotorcraft: AS355N
2000-05-16		Sikorsky	Rotorcraft: S-61
2000-05-17	S 99-19-23	Eurocopter France	Rotorcraft: EC 120B
2000-05-23		Ayres	S-2R, S2R-G1, S2R-G5, S2R-G6, S2R-G10, S2R-R3S +
2000-05-24		Honeywell International	Appliance: KAP 140 or KFC 225 autopilot system

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information			
2000-06-01		Cessna	150F, 150G, 150H, 150J, 150K, 150L, 150M, A150K, +
Biweekly 2000-06 Cont'd			
2000-06-02		Dornier	228-100, 228-101, 228-200, 228-201, 228-202, +
2000-06-03		Bombardier	DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300
2000-06-04		Fairchild	SA226-T, SA226-AT, SA226-T(B), SA227-AT, +
2000-06-06		The New Piper	PA-31, PA-31-300, PA-31-325, PA-31-350, PA-31P, +
Biweekly 2000-07			
2000-06-05		Eurocopter France	Rotorcraft: SA330F, SA330G, SA330J, AS332C, +
2000-06-07		Eurocopter Deutschland	Rotorcraft: MBB-BK 117
2000-07-03		Robinson Helicopter	Rotorcraft: R44
Biweekly 2000-08			
2000-04-15		Bell Helicopter	222, 222B, 222U, and 230
99-23-22 R2	Rescission	Transport Category Airplanes	Appliance: Mode "C" Transponder
2000-06-09		Turbomeca	Engine: Arrius 1A Series Turboshaft
2000-06-11		Turbomeca	Engine: Makila 1A and 1A1 Turboshaft
2000-06-12		Turbomeca	Engine: Artouste III B-B1-D Series Turboshaft
2000-07-27		Transport Category Airplanes	Appliance: Honeywell Air Data Inertial Reference Unit
2000-08-02		Agusta	Rotorcraft: A109A, A109AI, and A109C
2000-08-09		Robinson Helicopter	Rotorcraft: R22
Biweekly 2000-09			
86-15-10	R2	Eurocopter France	Rotorcraft: AS-350B, BA, B1, B2, C, D, and D1, +
95-19-04 R1	Rescission	Learjet	35, 35A, 36, 36A, 55, 55B, and 55C
2000-06-10		Bell Helicopter	Rotorcraft: 407
2000-08-04		Robinson Helicopter	Rotorcraft: R44
2000-08-06		Eurocopter France	Rotorcraft: SA-366G1
2000-08-05	S 99-02-09	Agusta SpA	Rotorcraft: A109C and A109K2
2000-08-16		Eurocopter Deutschland	Rotorcraft: MBB-BK 117 A-1, A-3, A-4, B-1, B-2, and C-1
2000-08-22		MD Helicopters Inc.	Rotorcraft: 369D, 369E, and 500N, 600N
2000-08-51	E	Teledyne Continental	Engine: IO-360, TSIO-360, LTSIO-360, O-470, IO-470, +
2000-08-52	E, S 98-24-15	Bell Helicopter	Rotorcraft: 204B, 205A, 205A-1, 205B, and 212
2000-08-53	E, S 89-17-03	Bell Helicopter	Rotorcraft: HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, +

**EUROCOPTER FRANCE
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

86-15-10 R2 EUROCOPTER FRANCE: Amendment 39-11681. Docket No. 98-SW-82-AD. Revises AD 86-15-10, Amendment 39-5517 and AD 86-15-10 R1, Amendment 39-6515.

Applicability: Model AS-350B, BA, B1, B2, C, D, and D1, and AS-355E, F, F1, F2 helicopters, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent ground resonance due to reduced structural stiffness, which could lead to failure of a main rotor head or main gearbox (MBG) suspension component and subsequent loss of control of the helicopter, accomplish the following:

(a) Within 10 hours time-in-service (TIS):

(1) For Model AS-350B, BA, B1, B2, C, D, and D1 helicopters, inspect the main rotor head components, the MGB suspension bars (struts), and the landing gear ground resonance prevention components (aft spring blades and hydraulic shock absorbers) in accordance with paragraph CC.3 of Aerospatiale Service Bulletin (SB) No. 01.17a (not dated).

(2) For Model AS-355E, F, F1, F2 helicopters, inspect the main rotor head components, the MGB suspension bars (struts), and the landing gear ground resonance prevention components (aft spring blades and hydraulic shock absorbers) in accordance with paragraph CC.3 of SB No. 01.14a (not dated).

(b) Rework or replace damaged components in accordance with SB No. 01.17a or SB No. 01.14a, as applicable.

(c) Repeat the inspections and rework required by paragraphs (a) and (b) of this AD at intervals not to exceed 500 hours TIS.

(d) If the helicopter is subjected to a hard landing or to high surface winds, when parked without effective tiedown straps installed, repeat the inspections required by paragraph (a) of this AD for the main rotor head star arms and the MGB suspension bars before further flight.

(e) In the event of a landing which exhibits abnormal self-sustained dynamic vibrations (ground resonance type vibrations), repeat all the inspections contained in paragraph (a) of this AD.

(f) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, FAA, Regulations Group, Rotorcraft Directorate. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(h) The inspections and modification shall be done in accordance with Aerospatiale Service Bulletin No. 01.17a or No. 01.14a (neither is dated). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75053-4005, telephone (972) 641-3460, fax (972) 641-3527. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(i) This amendment becomes effective on May 23, 2000.

FOR FURTHER INFORMATION CONTACT:

Jim Grigg, Aerospace Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff,
2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5490, fax (817) 222-5961.

Issued in Fort Worth, Texas, on April 4, 2000.

Henry A. Armstrong, Manager, Rotorcraft Directorate, Aircraft Certification Service.

**LEARJET
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

RESCISSION

95-19-04 R1 LEARJET: Amendment 39-11649. Docket No. 99-NM-311-AD. Rescinds AD 95-19-04, Amendment 39-9365.

Applicability: Model 35, 35A, 36, 36A, 55, 55B, and 55C airplanes; equipped with Global Wulfsburg GNS 500, GNS-1000, and GNS-X Flight Management Systems; certificated in any category.

This rescission is effective March 27, 2000.

FOR FURTHER INFORMATION CONTACT:

C. Dale Bleakney, Aerospace Engineer, Flight Test Branch, ACE-117W, FAA, Small Airplane Directorate, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4135; fax (316) 946-4407.

Issued in Renton, Washington, on March 20, 2000.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**BELL HELICOPTER
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-06-10 BELL HELICOPTER TEXTRON CANADA: Amendment 39-11651. Docket No. 99-SW-75-AD.

Applicability: Model 407 helicopters, serial numbers 53000 through 53003, 53005 and higher, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent separation of the tail boom and subsequent loss of control of the helicopter, accomplish the following:

(a) Before further flight and thereafter before the first flight of each day, check the left side of the tail boom for a crack in the areas shown in Figure 1. If a crack is found, replace the tail boom with an airworthy tail boom before further flight.

(b) An owner/operator (pilot) holding at least a private pilot certificate may perform the visual check required by paragraph (a) but must enter compliance with paragraph (a) into the aircraft records in accordance with 14 CFR 43.11 and 91.417(a)(2)(v)).

(c) Within 25 hours time-in-service (TIS) and thereafter at intervals not to exceed 50 hours TIS, visually inspect any tail boom with 600 or more hours TIS for a crack using a 10X or higher magnifying glass, in accordance with the Accomplishment Instructions, Part II, of Bell Helicopter Textron Canada Alert Service Bulletin 407-99-26, dated April 13, 1999, except that you are not required to contact Bell Helicopter Product Support Engineering. If a crack is found, replace the tail boom with an airworthy tail boom before further flight.

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(f) The inspection of the tail boom shall be done in accordance with the Accomplishment Instructions, Part II, of Bell Helicopter Textron Canada Alert Service Bulletin 407-99-26, dated April 13, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Bell Helicopter Textron Canada, 12,800 Rue de l'Avenir, Mirabel, Quebec JON1LO, telephone (800) 463-3036, fax (514) 433-0272. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, Room 663, Fort Worth, Texas, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(g) This amendment becomes effective on April 14, 2000.

NOTE 3: The subject of this AD is addressed in Transport Canada (Canada) AD CF-99-17, dated June 14, 1999.

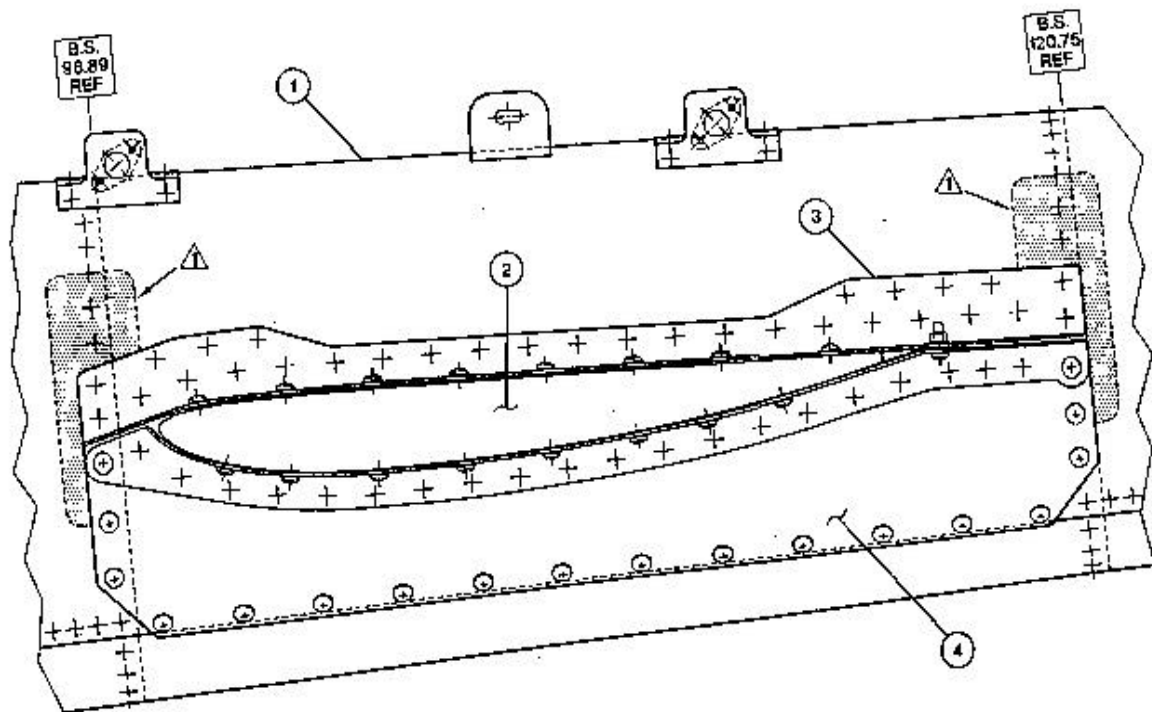
2000-06-10

FOR FURTHER INFORMATION CONTACT:

Sharon Miles, Aerospace Engineer, FAA, Rotorcraft Directorate, Regulations Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5122, fax (817) 222-5961.

Issued in Fort Worth, Texas, on March 21, 2000.

Henry A. Armstrong, Manager, Rotorcraft Directorate, Aircraft Certification Service.



LEGEND

1. Tailboom assembly (Ref.)
2. Horizontal stabilizer (Ref.)
3. Upper support (Ref.)
4. Lower support (407-023-600-121)

NOTES

- ⚠ Examine these areas for cracks on left side of tailboom only.
2. Horizontal stabilizer not shown for clarity.

Figure 1. Preflight Check of the Tailboom

**ROBINSON HELICOPTER
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-08-04 ROBINSON HELICOPTER COMPANY: Amendment 39-11690. Docket No. 99-SW-70-AD.

Applicability: Model R44 Helicopters, serial number (S/N) 0001 through 0541, inclusive, 0543, 0550, 0556, and 0565 with sprag clutch, part number (P/N) C188-3, S/N 0003 through 0505, inclusive, installed, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Within 30 calendar days or 50 hours time-in-service, whichever occurs first, unless accomplished previously.

To prevent sprag clutch failure, loss of main rotor RPM during autorotation, and subsequent loss of control of the helicopter, accomplish the following:

(a) Replace sprag clutch, P/N C188-3, S/N 0003 through 0505, inclusive, with sprag clutch P/N C188-3, S/N 0506 or higher.

(b) Remove from the Rotorcraft Flight Manual the Special Pilot Caution, dated March 22, 1999, contained in Robinson Helicopter Company R44 Service Bulletin SB-32 dated March 22, 1999, or the Special Pilot Caution insert in the Normal Procedures Section of the Rotorcraft Flight Manual between pages P.4-8 and P.4-9 required by AD 99-07-18, Docket No. 99-SW-25-AD, Amendment 39-11127 (64 FR 17964, April 13, 1999), as applicable.

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Los Angeles Aircraft Certification Office.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles Aircraft Certification Office.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(e) This amendment becomes effective on May 4, 2000.

FOR FURTHER INFORMATION CONTACT:

Elizabeth Bumann, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Blvd., Lakewood, California 90712-4137, telephone (562) 627-5265; fax (562) 627-5210.

Issued in Fort Worth, Texas, on April 10, 2000.

Henry A. Armstrong, Manager, Rotorcraft Directorate, Aircraft Certification Service.

**EUROCOPTER FRANCE
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-08-06 EUROCOPTER FRANCE: Amendment 39-11692. Docket No. 99-SW-14-AD.

Applicability: Model SA-366G1 helicopters, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required within 400 hours time-in-service or within 6 calendar months, whichever occurs first, unless accomplished previously.

To prevent loss of electrical continuity, which could cause loss of required systems and subsequent loss of control of the helicopter, accomplish the following:

(a) Replace each "CONNECTRAL" green electrical module that does not have a white dot on the face and that has a manufacturing code of 95/16 through 96/21 with an airworthy electrical module. Those manufacturing codes identify modules manufactured between the beginning of the 16th week of 1995 and the end of the 21st week of 1996.

NOTE 2: Eurocopter France Service Bulletin No. 01.25, dated May 28, 1998, pertains to the subject of this AD.

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(d) This amendment becomes effective on May 24, 2000.

NOTE 4: The subject of this AD is addressed in Direction Generale De L'Aviation Civile AD 98-251-022(A), dated July 1, 1998.

FOR FURTHER INFORMATION CONTACT:

Robert McCallister, Aerospace Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0110, telephone (817) 222-5121, fax (817) 222-5961.

Issued in Fort Worth, Texas, on April 11, 2000.

Henry A. Armstrong, Manager, Rotorcraft Directorate, Aircraft Certification Service.

**AGUSTA SPA
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-08-05 AGUSTA S.p.A.: Amendment 39-11691. Docket No. 99-SW-28-AD. Supersedes AD 99-02-09, Amendment 39-11000, Docket No. 97-SW-55-AD.

Applicability: Model A109C and A109K2 helicopters, with main rotor pitch control link assemblies, part number (P/N) 109-0110-71-103 or -105, installed, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required before further flight, unless accomplished previously.

To prevent failure of a main rotor pitch control link rod-end spherical bearing, increased vibration level, and subsequent reduced controllability of the helicopter, accomplish the following:

(a) Rework each main rotor pitch control link assembly, P/N 109-0110-71-103 or -105, and reidentify as pitch control link assembly, P/N 109-0110-71-107, in accordance with the Compliance Instructions of Agusta Bollettino Tecnico 109K-10 or 109-103, both dated November 22, 1995, as applicable.

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(d) The modification shall be done in accordance with the Compliance Instructions of Agusta Bollettino Tecnico 109K-10 or 109-103, both dated November 22, 1995. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Agusta, 21017 Cascina Costa di Samarate (VA), Via Giovanni Agusta 520, telephone (0331) 229111, fax (0331) 229605-222595. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(e) This amendment becomes effective on May 30, 2000.

NOTE 3: The subject of this AD is addressed in Registro Aeronautico Italiano (Italy) AD's 95-332, dated December 15, 1995, and 95-334, dated December 18, 1995.

FOR FURTHER INFORMATION CONTACT: Shep Blackman, Aerospace Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5296, fax (817) 222-5961.

Issued in Fort Worth, Texas, on April 11, 2000.

Henry A. Armstrong, Manager, Rotorcraft Directorate, Aircraft Certification Service.

**EUROCOPTER DEUTSCHLAND GMBH
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-08-16 EUROCOPTER DEUTSCHLAND GMBH: Amendment 39-11702. Docket No. 99-SW-73-AD.

Applicability: Model MBB-BK 117 A-1, A-3, A-4, B-1, B-2, and C-1 helicopters, serial numbers 7001 through 7253 and 7500 through 7523, with transmission door cowling, left hand, part number (P/N) 117-23206-51 or 117-233731, right hand, P/N 117-23206-52 or 117-233741, and engine door cowling left hand, P/N 117-23303-51 or 117-23303-53, right hand, P/N 117-23303-52 or 117-23303-54, installed, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required within 6 calendar months, unless accomplished previously.

To prevent the engine and transmission cowling doors (cowling doors) opening during flight, separating from the helicopter and impacting the main or tail rotor blades, and subsequent loss of control of the helicopter, accomplish the following:

(a) Modify the cowling doors in accordance with paragraph 2.B., Work Procedure, and 2.C., Conclusions, of Eurocopter Deutschland GMBH Service Bulletin SB-MBB-BK 117-20-109, Revision 2, dated April 30, 1999 (SB).

NOTE 2: Adjustment and functional testing of the hook system in accordance with paragraph 2.B.8 of the SB is critical after installation.

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(d) The modification shall be done in accordance with paragraph 2.B., Work Procedure, and 2.C., Conclusions, of Eurocopter Deutschland GMBH Service Bulletin SB-MBB-BK 117-20-109, Revision 2, dated April 30, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75053-4005, telephone (972) 641-3460, fax (972) 641-3527. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(e) This amendment becomes effective on June 2, 2000.

NOTE 4: The subject of this AD is addressed in Luftfahrt-Bundesamt (the Federal Republic of Germany) AD No. 1999-302, dated September 23, 1999.

FOR FURTHER INFORMATION CONTACT:

Richard A. Monschke, Aerospace Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0110, telephone (817) 222-5116, fax (817) 222-5961

Issued in Fort Worth, Texas, on April 18, 2000.

Mark R. Schilling, Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

**MD HELICOPTERS INC
AIRWORTHINESS DIRECTIVE
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-08-22 MD HELICOPTERS INC.: Amendment 39-11708, Docket No. 2000-SW-02-AD.

Applicability: Model 369D, 369E, and 500N helicopters, with analog/digital turbine outlet temperature (TOT) indicator, part number (P/N) 369D24513-1, installed; and Model 600N helicopters, with analog/digital TOT indicator, P/N 9A3420, installed; certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent an erroneous TOT indication, damage to critical engine components, loss of engine power, and a subsequent forced landing, accomplish the following:

(a) For Model 369E, 369D, and 500N helicopters: Within the next 50 hours time-in-service (TIS) or on or before June 15, 2000, whichever occurs first; test the TOT indicating system to verify correct calibration in accordance with the Accomplishment Instructions, Part I, of MD Helicopters, Inc. (MDHI) Service Bulletin SB369D-199, SB369E-093, SB500N-019, dated January 11, 2000 (SB). Thereafter, repeat the test at intervals not to exceed 300 hours TIS.

(b) If during any test required by paragraph (a) of this AD the TOT indicator readings for the tester setting temperatures in Table 1, Part I, of the SB are not within the indicator reading range, before further flight, perform the actions in the Accomplishment Instructions, Part I, paragraph (6)(b) of the SB.

(c) For Model 600N helicopters: Within the next 50 hours TIS or on or before June 15, 2000, whichever occurs first; test the TOT indicating system, including the electronic control unit (ECU) TOT sensing system, to verify correct calibration in accordance with the Accomplishment Instructions, Part I, of MDHI SB600N-026, dated January 11, 2000 (SB 600N). Thereafter, repeat the test at intervals not to exceed 300 hours TIS.

(d) If during any calibration test required by paragraph (c) of this AD the TOT indicator readings for the tester setting temperatures in Table 1, Part I, of SB 600N, are not within the indicator reading range, before further flight, perform the actions in the Accomplishment Instructions, Part I, paragraph (7)(b) of SB 600N.

(e) If during any test required by paragraph (c) of this AD the Full Authority Digital Electronic Control (FADEC) maintenance lap-top terminal does not indicate ECU TOT within ± 5 degrees Celsius of the tester setting in Table 1, Part I, of SB 600N, before further flight, perform the actions in the Accomplishment Instructions, Part III, of the SB 600N.

(f) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Los Angeles Aircraft Certification Office.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles Aircraft Certification Office.

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(h) The tests shall be done in accordance with MD Helicopters Inc. Service Bulletin SB369D-199, SB369E-093, SB500N-019 for Model 369D, 369E, and 500N helicopters and Service Bulletin SB600N-026 for Model 600N helicopters, both dated January 11, 2000. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop

2000-08-22

M615-GO48, Mesa, Arizona 85215-9797, telephone 1-800-388-3378 or 480-346-6387; datafax 480 346-6813. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

- (i) This amendment becomes effective on May 22, 2000.

FOR FURTHER INFORMATION CONTACT:

Elizabeth Bumann, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Blvd., Lakewood, California 90712-4137, telephone (562) 627-5265; fax (562) 627-5210.

Issued in Fort Worth, Texas, on April 18, 2000.

Mark R. Schilling, Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

**TELEDYNE CONTINENTAL MOTORS
AIRWORTHINESS DIRECTIVE
EMERGENCY
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-08-51 TELEDYNE CONTINENTAL MOTORS: Docket No. 2000-NE-16-AD.

Applicability: This Airworthiness Directive (AD) is applicable to Teledyne Continental Motors (TCM) IO-360, TSIO-360, LTSIO-360, O-470, IO-470, TSIO-470, IO-520, TSIO-520, LTSIO-520, IO-550, TSIO-550 and TSIOL-550 series engines that were assembled, rebuilt, or overhauled using a crankshaft that was manufactured between April 1, 1998, and March 31, 2000, listed by engine and crankshaft serial number (SN) in TCM Mandatory Service Bulletin (MSB) 00-5A, dated April 28, 2000.

NOTE 1: The engines and crankshafts that are the subject of this AD were manufactured by TCM from April 1, 1998 through March 31, 2000. However the dates that the engines and crankshafts were delivered may not coincide with their dates of manufacture. For crankshafts identified in paragraph (a) of this AD, TCM has already determined which engines have a new suspect crankshaft installed and have identified those engines by engine SN. The crankshaft SN is only used to determine the need for taking a core sample for those crankshafts identified in paragraph (a) and (b) of this AD.

NOTE 2: The engine SN can be found in logbooks or other maintenance records. For those engines that were overhauled in the field with factory new crankshafts, the crankshaft SN should be shown in work orders, log books or other maintenance records. If the engine was assembled new, rebuilt, or overhauled on or before March 31, 1998, or on or after April 1, 2000, no action is required.

NOTE 3: This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Compliance with the following instructions is required within the next 10 hours time-in-service from the receipt of this Emergency AD, unless already accomplished.

To prevent crankshaft failure due to crankshaft connecting rod journal fracture, which could result in total engine power loss, in-flight engine failure and possible forced landing, do the following:

NOTE 4: TCM supplies an instructional video in the tool kit for MSB 00-5A. It is recommended that the technician views and understands "Instructional Video for Compliance with Teledyne Continental Motors Mandatory Service Bulletin MSB 00-5A" before performing these procedures.

Crankshaft Material Inspection

(a) For those engines and crankshafts listed by SN in TCM MSB 00-5A, dated April 28, 2000, perform the crankshaft material inspection (crankshaft propeller flange core sample) as follows:

NOTE 5: The engine SN's listed in TCM MSB 00-5A contain only the numerical portion of the SN. Engines that have been rebuilt by TCM will have a letter "R" at the end of the six digit numerical portion. Disregard the letter "R."

(1) Perform the crankshaft material inspection (crankshaft propeller flange core sample) in accordance with sections A through J of TCM MSB 00-5A, dated April 28, 2000, as follows:

(i) Use the specialized tools and equipment provided by TCM as listed in section A of TCM MSB 00-5A, dated April 28, 2000.

(ii) You may use each rotobroach bit to obtain up to six core samples. Replace the rotobroach after the sixth core sample, or before if the rotobroach does not cut with the maximum torque applied.

(iii) Maintain a record of each core sample obtained with each rotobroach bit used. Contact TCM to obtain additional rotobroach bits.

(iv) Do not exceed the torque limits specified in TCM MSB 00-5A, dated April 28, 2000, when obtaining the core sample.

(2) After obtaining the core sample, disposition the crankshaft as follows:

(i) If TCM notifies you that the crankshaft is not serviceable, replace the crankshaft with a serviceable crankshaft of the same part number prior to further flight.

(ii) If TCM notifies you that the crankshaft is serviceable, the propeller assembly may be reinstalled.

Installation of Crankshafts

(b) After the effective date of this AD, installation of a crankshaft with a SN that is listed in MSB 00-5A, dated April 28, 2000, is prohibited, unless core samples have been taken and TCM approval for return to service has been received.

(c) Crankshaft material inspections (crankshaft propeller flange core samples) performed in accordance with TCM MSB 00-5, dated April 14, 2000, comply with this AD and must not be repeated.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Atlanta Aircraft Certification Office (ACO). Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta ACO.

NOTE 6: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Atlanta ACO.

(e) Copies of the applicable service information may be obtained from Teledyne Continental Motors, PO Box 90, Mobile, AL 36601; telephone toll free 1-888-200-7565, or on the TCM internet site "www.tcmlink.com." This information may also be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA 01803.

(f) **Emergency AD 2000-08-51, issued April 28, 2000, becomes effective upon receipt.**

FOR FURTHER INFORMATION CONTACT:

Jerry Robinette, Senior Engineer, Propulsion, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, GA 30349; telephone (770) 703-6096, fax (770) 703-6097.

Issued in Burlington, Massachusetts on April 28, 2000.

David A. Downey, Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.

**BELL HELICOPTER TEXTRON
AIRWORTHINESS DIRECTIVE
EMERGENCY
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-08-52 BELL HELICOPTER TEXTRON INC.: Docket No. 2000-SW-20-AD. Supersedes AD 98-24-15, Docket No. 97-SW-20-AD, Amendment 39-10900.

Applicability: Model 204B, 205A, 205A-1, 205B, and 212 helicopters, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless previously accomplished.

To prevent failure of a main rotor mast (mast) or main rotor trunnion (trunnion), separation of main rotor system, and subsequent loss of control of the helicopter, accomplish the following:

(a) For Model 204B helicopters:

(1) Before further flight, review the component history cards or equivalent records for mast, part number (P/N) 204-011-450-001, -007, or -105, and trunnion, P/N 204-011-105-001, and determine accumulated RIN as follows:

(i) For mast, P/N 204-011-450-001, multiply the total hours time-in-service (TIS) to date by 50 (if result contains a decimal point, round off to the next higher whole number).

(ii) For mast, P/N 204-011-450-007 or -105, and trunnion, P/N 204-011-105-001, multiply the total hours TIS to date by 20 (if the result contains a decimal point, round off to the next higher whole number).

NOTE 2: Previous compliance with AD 98-24-15 constitutes accomplishment of requirements of paragraph (a)(1) of this AD.

(2) Before further flight, replace any mast, P/N 204-011-450-001, -007, or -105, that has accumulated more than 265,000 RIN, with an airworthy mast.

(3) Inspect the upper and lower snap ring grooves in the damper clamp splined area of mast, P/N 204-011-450-001, -007, or -105, for a minimum radius of 0.020 inches around the entire circumference (See Figures 1 through 3), using a 100X or higher magnification, according to the following schedule:

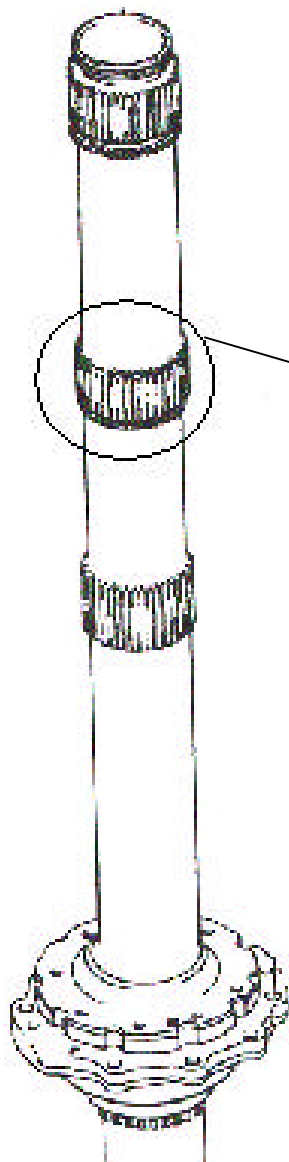
NOTE 3: The mast S/N may include the prefix NFS or N9.

(i) S/N 23002 and prior, with less than 100,000 RIN, before 100,000 RIN.

(ii) S/N 23002 and prior, with more than 100,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(iii) S/N 23003 through 36752, with less than 170,000 RIN, before 170,000 RIN.

(iv) S/N 23003 through 36752, with more than 170,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.



Inspect area for:

- At 100x minimum magnification
Minimum radius of 0.020 at the
snap ring groove/spline intersection
- At 200x minimum magnification
Burrs in the snap ring groove

See view A-A for detail

View A

Figure 1

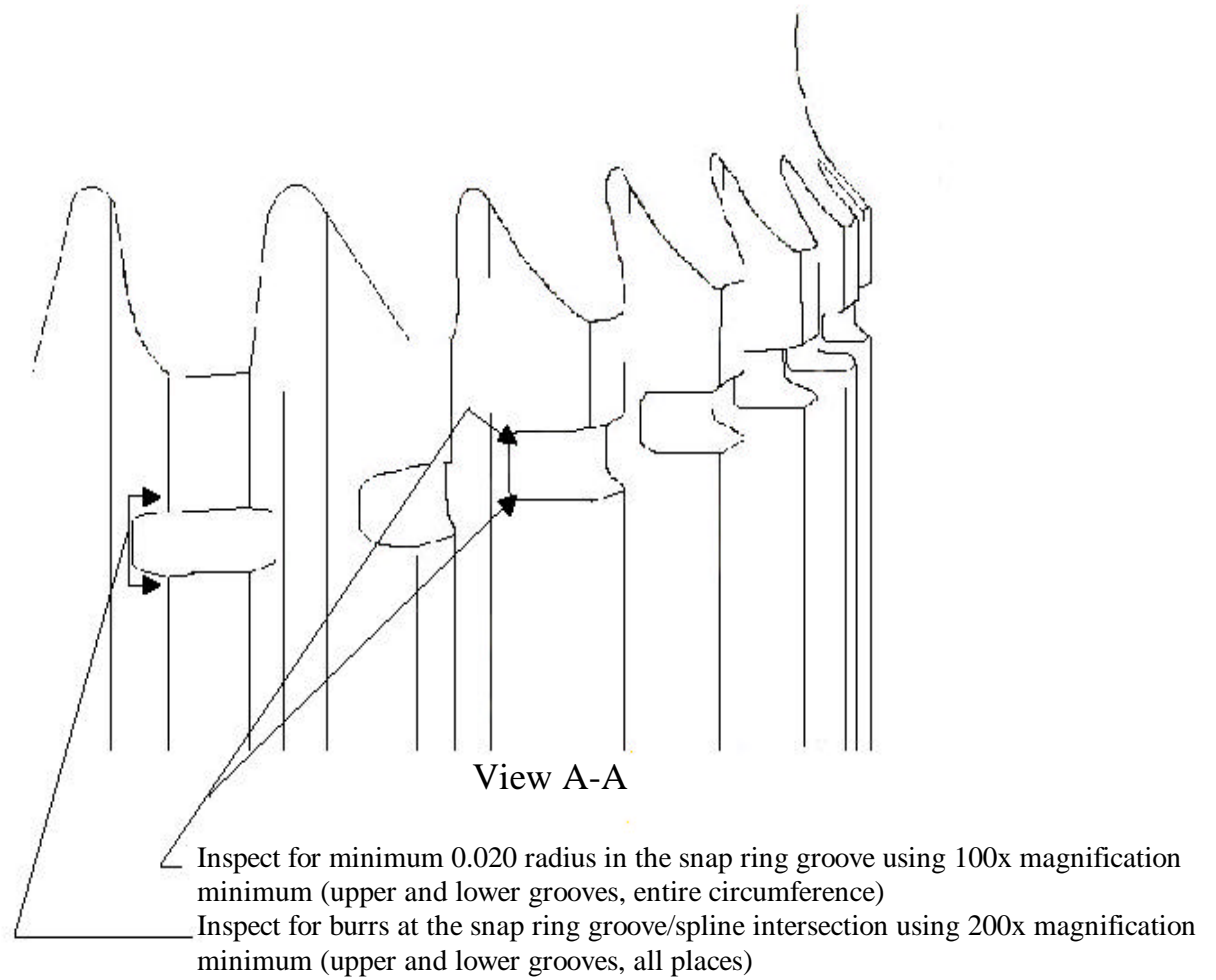
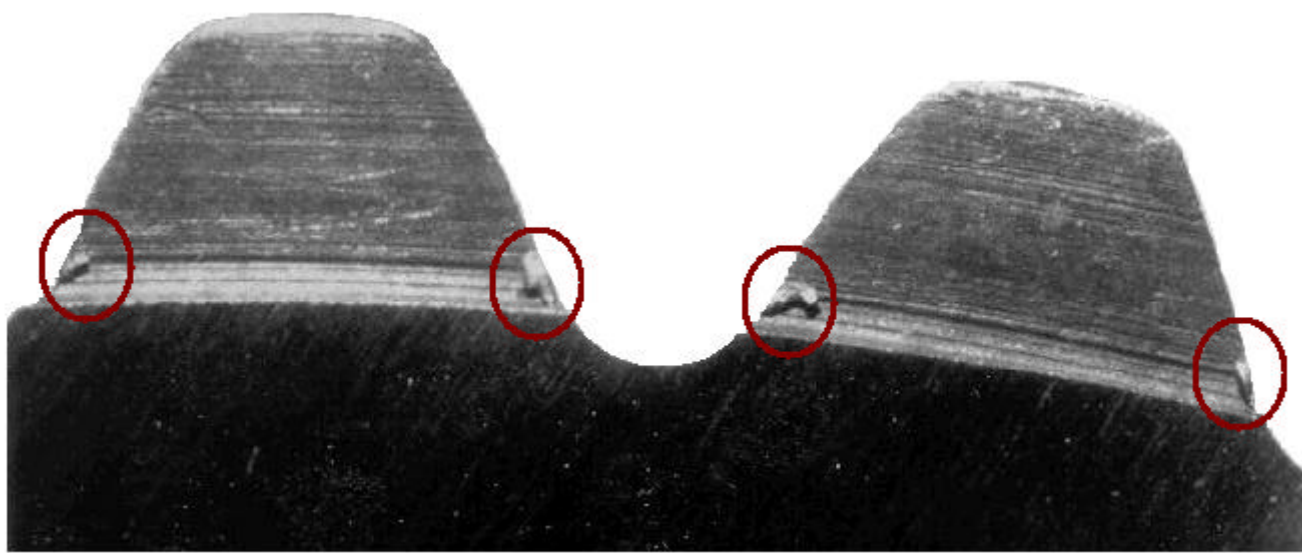


Figure 2
Snap ring groove/spline intersection



Cutaway View Looking Down from Inside Snap Ring Groove
Typical Burrs at Snap Ring Groove/Spline Intersection
Burrs are to be Inspected at 200x Minimum Magnification

Figure 3
Typical Burr at Snap Ring Groove

(4) If any snap ring groove radius is less than 0.020 inches, replace the mast with an airworthy mast before accumulating 100,000 RIN or before further flight if RIN exceeds 100,000.

(5) Inspect the upper and lower snap ring grooves of mast, P/N 204-011-450-001, -007, or -105 for a burr (See Figures 1 through 3), using a 200X or higher magnification, according to the following schedule:

- (i) S/N 23002 and prior, with less than 100,000 RIN, before 100,000 RIN.
- (ii) S/N 23002 and prior, with more than 100,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.
- (iii) S/N 23003 through 36752, with less than 170,000 RIN, before 170,000 RIN.
- (iv) S/N 23003 through 36752, with more than 170,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(6) If a burr is found in any snap ring groove radius, replace the mast with an airworthy mast before accumulating 170,000 RIN or before further flight if RIN exceeds 170,000.

(7) Calculate the accumulated RIN for mast, P/N 204-011-450-001, for all future torque events as follows:

- (i) Increase the accumulated RIN count by 5 for each takeoff.
- (ii) Increase the accumulated RIN count by 10 for each external load lift.

(8) Calculate the accumulated RIN for mast, P/N 204-011-450-007, or -105, for all future torque events as follows:

- (i) Increase the accumulated RIN count by 1 for each takeoff.
- (ii) Increase the accumulated RIN count by 2 for each external load lift.

(9) Calculate the accumulated RIN for trunnion, P/N 204-011-105-001, for all future torque events as follows:

- (i) Increase the accumulated RIN count by 1 for each takeoff.
- (ii) Increase the accumulated RIN count by 2 for each external load lift.

(10) Revise the Airworthiness Limitations sections of the maintenance manual by reducing the maximum allowable RIN life limit for masts P/N 204-011-450-001, -007, and -105 to 265,000. The maximum allowable life limit for masts, P/N 204-011-450-001, remains unchanged at 6,000 hours TIS. The maximum allowable life limit for masts, P/N 204-011-450-007, and -105, remains unchanged at 15,000 hours TIS. The maximum allowable life limit for trunnion, P/N 204-011-105-001, remains unchanged at 300,000 RIN or 15,000 hours TIS, whichever occurs first.

(b) For Model 205A and 205A-1 helicopters:

(1) Before further flight, determine and record on the component history cards or equivalent records the accumulated RIN to date on the mast and trunnion. For mast, P/N 204-011-450-007 or -105, and trunnion, P/N 204-011-105-001, multiply the **factored** flight hour total to date, determined in accordance with the Accomplishment Instructions, paragraph 1, 2, or 3, of the Bell Helicopter Textron Inc. (BHTI) Alert Service Bulletin (ASB) No. 205-90-40, Revision A, dated March 21, 1991, by 20 (if the result contains a decimal point, round off to the next higher whole number).

NOTE 4: Previous compliance with AD 98-24-15 constitutes accomplishment of the requirements of paragraph (b)(1) of this AD.

(2) Before further flight, replace any mast, P/N 204-011-450-007 or -105, that has accumulated more than 265,000 RIN with an airworthy mast.

(3) Inspect the upper and lower snap ring grooves in the damper clamp splined area of mast, P/N 204-011-450-007 or -105, for a minimum radius of 0.020 inches around the entire circumference (See Figures 1 through 3), using a 100X or higher magnification, according to the following schedule:

NOTE 5: The mast S/N may include the prefix NFS or N9.

- (i) S/N 23002 and prior, with less than 100,000 RIN, before 100,000 RIN.
- (ii) S/N 23002 and prior, with more than 100,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.
- (iii) S/N 23003 through 36752, with less than 170,000 RIN, before 170,000 RIN.
- (iv) S/N 23003 through 36752, with more than 170,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(4) If any snap ring groove radius is less than 0.020 inches, replace the mast with an airworthy mast before accumulating 100,000 RIN or before further flight if RIN exceeds 100,000.

(5) Inspect the upper and lower snap ring grooves of mast, P/N 204-011-450-007, or -105 for a burr (See Figures 1 through 3), using a 200X or higher magnification, according to the following schedule:

- (i) S/N 23002 and prior, with less than 100,000 RIN, before 100,000 RIN.
- (ii) S/N 23002 and prior, with more than 100,000 RIN, within 10 hours TIS or 500 RIN whichever occurs first.
- (iii) S/N 23003 through 36752, with less than 170,000 RIN, before 170,000 RIN.
- (iv) S/N 23003 through 36752, with more than 170,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(6) If a burr is found in any snap ring groove radius, replace the mast with an airworthy mast before accumulating 170,000 RIN or before further flight if RIN exceeds 170,000.

(7) Calculate the accumulated RIN for mast, P/N 204-011-450-007 or -105, for all future torque events as follows:

- (i) Increase the accumulated RIN count by 2 for each takeoff.
- (ii) Increase the accumulated RIN count by 4 for each external load lift.

(8) Calculate the accumulated RIN for trunnion, P/N 204-011-105-001, for all future torque events as follows:

- (i) Increase the accumulated RIN count by 2 for each takeoff.
- (ii) Increase the accumulated RIN count by 4 for each external load lift.

(9) Revise the Airworthiness Limitations sections of the maintenance manual by reducing the maximum allowable RIN life limit for masts, P/N 204-011-450-007 and -105, to 265,000. The maximum allowable RIN life limit for masts, P/N 204-011-450-007 and -105, remains unchanged at 15,000 hours TIS. The maximum allowable life limit for trunnion, P/N 204-011-105-001, remains unchanged at 300,000 RIN or 15,000 hours TIS, whichever occurs first.

(c) For Model 205B helicopters:

(1) Before further flight, determine and record on the component history cards or equivalent records the accumulated RIN to date on the mast and trunnion. For mast, P/N 204-011-450-007 or -105, and trunnion, P/N 204-011-105-001, multiply the **factored** flight hour total to date, determined in accordance with the Accomplishment Instructions, paragraph 1, 2, or 3, of BHTI ASB No. 205B-90-1, Revision A, dated March 21, 1991, by 20 (if the result contains a decimal point, round off to the next higher whole number).

NOTE 6: Previous compliance with AD 98-24-15 constitutes accomplishment of the requirements of paragraph (c)(1) of this AD.

(2) Before further flight, replace any mast, P/N 204-011-450-007 or -105, that has accumulated more than 265,000 RIN with an airworthy mast.

(3) Inspect the upper and lower snap ring grooves in the damper clamp splined area of mast, P/N 204-011-450-007, or -105, for a minimum radius of 0.020 inches around the entire circumference (See Figures 1 through 3), using a 100X or higher magnification, according to the following schedule:

NOTE 7: The mast S/N may include the prefix NFS or N9.

- (i) S/N 23002 and prior, with less than 100,000 RIN, before 100,000 RIN.
- (ii) S/N 23002 and prior, with more than 100,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.
- (iii) S/N 23003 through 36752, with less than 170,000 RIN, before 170,000 RIN.
- (iv) S/N 23003 through 36752, with more than 170,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(4) If any snap ring groove radius is less than 0.020 inches, replace the mast with an airworthy mast before accumulating 100,000 RIN or before further flight if RIN exceeds 100,000.

(5) Inspect the upper and lower snap ring grooves of mast, P/N 204-011-450-007 or -105, for a burr (See Figures 1 through 3), using a 200X or higher magnification, according to the following schedule:

- (i) S/N 23002 and prior, with less than 100,000 RIN, before 100,000 RIN.

(ii) S/N 23002 and prior, with more than 100,000 RIN, within 10 hours TIS or 500 RIN whichever occurs first.

(iii) S/N 23003 through 36752, with less than 170,000 RIN, before 170,000 RIN.

(iv) S/N 23003 through 36752, with more than 170,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(6) If a burr is found in any snap ring groove radius, replace the mast with an airworthy mast before accumulating 170,000 RIN or before further flight if RIN exceeds 170,000.

(7) Calculate the accumulated RIN for mast, P/N 204-011-450-007 or -105, for all future torque events as follows:

(i) Increase the accumulated RIN count by 6 for each takeoff.

(ii) Increase the accumulated RIN count by 12 for each external load lift.

(8) Calculate the accumulated RIN for trunnion, P/N 204-011-105-001, for all future torque events as follows:

(i) Increase the accumulated RIN count by 5 for each takeoff.

(ii) Increase the accumulated RIN count by 10 for each external load lift.

(9) Revise the Airworthiness Limitations sections of the maintenance manual by reducing the maximum allowable RIN life limit for masts, P/N 204-011-450-007 and -105 to 265,000. The maximum allowable RIN life limit for masts, P/N 204-011-450-007 and -105, remains unchanged at 15,000 hours TIS. The maximum allowable life limit for trunnion, P/N 204-011-105-001, remains unchanged at 300,000 RIN or 15,000 hours TIS, whichever occurs first.

(d) For Model 212 helicopters:

(1) Before further flight, determine and record on the component history cards or equivalent records the accumulated RIN to date on the mast and trunnion as follows:

(i) For mast, P/N 204-011-450-007 or -105, and trunnion, P/N 204-011-105-001, multiply the **factored** flight hour total to date, determined in accordance with the Accomplishment Instructions, paragraph 1, 2, or 3, of BHTI ASB No. 212-90-64, Revision B, dated March 11, 1992, by 20 (if the result contains a decimal point, round off to the next higher whole number).

(ii) For masts, P/N 204-011-450-113 or -119, and trunnion, P/N 204-011-105-103, multiply the **factored** flight hour total to date, determined in accordance with the Accomplishment Instructions, paragraph 1, 2, or 3, of BHTI ASB No. 212-90-64, Revision B, dated March 11, 1992, by 21.2 (if the result contains a decimal point, round off to the next higher whole number).

NOTE 8: Previous compliance with AD 98-24-15 constitutes accomplishment of the requirements of paragraph (d)(1) of this AD.

(2) Before further flight, replace any mast, P/N 204-011-450-007 or -105, that has accumulated more than 265,000 RIN with an airworthy mast. Before further flight, replace any mast, P/N 204-011-450-113, or -119, that has accumulated more than 240,000 RIN with an airworthy mast.

(3) Inspect the upper and lower snap ring grooves in the damper clamp splined area of mast, P/N 204-011-450-007, -105, -113, or -119, for a minimum radius of 0.020 inches around the entire circumference (See Figures 1 through 3), using a 100X or higher magnification, according to the following schedule:

NOTE 9: The mast S/N may include the prefix NFS or N9.

(i) S/N 23002 and prior, with less than 100,000 RIN, before 100,000 RIN.

(ii) S/N 23002 and prior, with more than 100,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(iii) S/N 23003 through 36752, with less than 170,000 RIN, before 170,000 RIN.

(iv) S/N 23003 through 36752, with more than 170,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(4) If any snap ring groove radius is less than 0.020 inches, replace the mast with an airworthy mast before accumulating 100,000 RIN or before further flight if RIN exceeds 100,000.

(5) Inspect the upper and lower snap ring grooves of mast, P/N 204-011-450-007, -105, -113, or -119, for a burr (See Figures 1 through 3), using a 200X or higher magnification, according to the following schedule:

(i) S/N 23002 and prior, with less than 100,000 RIN, before 100,000 RIN.

(ii) S/N 23002 and prior, with more than 100,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(iii) S/N 23003 through 36752, with less than 170,000 RIN, before 170,000 RIN.

(iv) S/N 23003 through 36752, with more than 170,000 RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(6) If a burr is found in any snap ring groove radius, replace the mast with an airworthy mast before accumulating 170,000 RIN or before further flight if RIN exceeds 170,000.

(7) Calculate the accumulated RIN for each mast, P/N 204-011-450-007, -105, -113, or -119, for all future torque events as follows:

(i) Increase the accumulated RIN count by 5 for each takeoff.

(ii) Increase the accumulated RIN count by 10 for each external load lift.

(8) Calculate the accumulated RIN for trunnion, P/N 204-011-105-001 or -103, for all future torque events as follows:

(i) Increase the accumulated RIN count by 5 for each takeoff.

(ii) Increase the accumulated RIN count by 10 for each external load lift.

(9) Revise the Airworthiness Limitations sections of the maintenance manual by reducing the maximum allowable RIN life limit for masts, P/N 204-011-450-007 and -105, to 265,000. Reduce the maximum allowable RIN life limit for masts, P/N 204-011-450-113 and -119, to 240,000. The maximum allowable RIN life limit for masts, P/N 204-011-450-001, -007, and -105, remains unchanged at 15,000 hours. The maximum allowable life limit for masts, P/N 204-011-450-113, and -119, remains unchanged at 13,000 hours TIS. The maximum allowable life limit for trunnion, P/N 204-011-105-001, remains unchanged at 300,000 RIN or 15,000 hours TIS, whichever occurs first. The maximum allowable life limit for trunnion, P/N 204-011-105-103, remains unchanged at 275,000 RIN or 13,000 hours TIS, whichever occurs first.

(e) Within 10 days after completing the inspections required by this AD, complete the AD compliance inspection report form, Appendix 1, with the requested information, and send it to the attention of the Manager, Rotorcraft Certification Office, Federal Aviation Administration, Fort Worth, Texas, 76193-0170, USA. Reporting requirements have been approved by the Office of Management and Budget and assigned OMB control number 2120-0056.

(f) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Rotorcraft Certification Office, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Rotorcraft Certification Office.

NOTE 10: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Manager, Rotorcraft Certification Office.

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(h) Copies of the applicable service information may be obtained from Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, Texas 76101, telephone (817) 280-3391, fax (817) 280-6466. This information may be examined at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas.

NOTE 11: BHTI has advised that the following facilities have received special training to perform the inspections required by this AD:

Mast Inspection Centers

NORTH AMERICA – UNITED STATES/CANADA

Bell Helicopter Textron, Inc.

Logistics Center, Plant 8
ATTN: CPR Administration
3000 S. Norwood Dr.
Hurst, TX 76053

Once the mast is shipped to BHTI, please provide the name of the carrier, Air Way Bill Number, Mast Part Number and Serial Number, and ensure that the historical record accompanies the mast inside the crate.

FAX 817.280.2516 or 817-280-3224 or 817-280-8898

Email: #Warranty/CPRDept@bellhelicopter.textron.com

Air Logistics – Louisiana

Doug Forslund,
Director of Maintenance
4605 Industrial Drive
New Iberia, LA 70560
318.365.6771 Fax 318.364-B222
Email: difors/und@attglobal.net

PHI – Louisiana

R. P. Mouton
113 Borman Drive
Lafayette, LA 70508
337-235-2452 Fax 337-235.1361/7312
Email: r.p.Mouton@phihelico.com

Bell Helicopter Textron – Canada

Mark Coste
12,800 rue de l-Avenir
Mirabel (Quebec)
Canada J7J 1R4
450-437-8201 Fax 450.433.0272
Email: psmedium@bellhelicopter.textron.com

Helipro International – Canada

Bill Davis
4551 Agar Dr.
Richmond, BC, Canada V7B 1A4
604.514.5271 Fax 604.514.1734
Email: bdavis@acro.ca

LATIN AMERICA

Aerotechnica – Venezuela

Carlos Dugarte
Av. La Estancia
Torre Las Mercedes
Piso 2, Ofic. 210
Caracas, Venezuela 1060
58-2-575-0965 Fax 992.7390
Email: cdugarte@etheron.net

Helicentro – Colombia

Harold F. Martinez, Maintenance director
Autopista Medellin KM2
Carrera 7 No. 83-73
Santafe de Bogota, Colombia
571.433.5970 fax 571.433.5988
Email: helicentro@tutoia.com

SACSA – Mexico

Eduardo Mendex
Terminal de Aviacion General
Hangar 2, Zona D
Aeropuerto Int'l de Mexico
C. P. 15620 Mexico City D.F., Mexico
525.32509.89 Fax 525.76302.41
Email: sacsamk@df1.telmex.net.mx

PACIFIC RIM

Fuji heavy Industries

Nobuhisa Nakagawa, General Manager
1418 Kamiyokota – cho
Utsunomiya City, Tochigi
Japan 321-0106
81.28.659.4833 Fax 81.28.659.4853
Email: smatubara@bellhelicopter.textron.com

Singapore Technologies Aerospace Ltd

Ho Yuen Sang
540 Airport rd.
Paya Lebar
Singapore 539938
65-287-1111 Fax 65.280.8213
Email yuensang@st.com.sg

2000-08-52

EUROPE/MIDDLE EAST

Patria Ostermans Aero AB

Rolf Gauffin
Helikoptervagen 1
Stockholm-Arlanda
Sweden SE-190 46
46.8.593.787.59 Fax 46.8.593787.90
Email: ostermans@patria.se

Abu Dhabi Aviation LTD. –UAE

PO Box 2723
Abu Dhabi
United Arab Emirates
97-124-449-100 Fax 97-124-449-081
Email: adava@emirates.net.a.e

- (i) Emergency AD 2000-08-52, issued April 21, 2000, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT: Jurgen Priester, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Certification Office, Fort Worth, Texas 76193-0170, telephone (817) 222-5159, fax (817) 222-5783.

Issued in Fort Worth, Texas, on April 21, 2000

Henry A. Armstrong, Manager, Rotorcraft Directorate Aircraft Certification Service.

APPENDIX 1

**AD COMPLIANCE INSPECTION REPORT FORM
P/N 204-011-450-001/-007/-105/-113/-119 MAIN ROTOR MAST**

Complete the following information and mail or fax this form to:

Manager, Rotorcraft Certification Office
Federal Aviation Administration
Fort Worth, Texas, 76193-0170, USA.
Fax: 817-222-5783

Operator Name:

Aircraft Registration No.

Helicopter Model:

Helicopter S/N:

Mast P/N:

Mast S/N:

Mast RIN:

Mast Total TIS:

Inspection Results:

- 1. Were any radii during inspection of this mast determined to be less than 0.020 inches? If yes, what was the dimension measured?**
- 2. Was a burr found in the inspected snap ring grooves?**
- 3. Who performed this inspection?**
- 4. Provide any other comments?**

**BELL HELICOPTER
AIRWORTHINESS DIRECTIVE
EMERGENCY
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-08-53 FIREFLY AVIATION HELICOPTER SERVICES (PREVIOUSLY ERICKSON AIR CRANE CO.); GARLICK HELICOPTERS, INC.; HAWKINS AND POWERS AVIATION, INC.; INTERNATIONAL HELICOPTERS, INC.; TAMARACK HELICOPTERS, INC. (PREVIOUSLY RANGER HELICOPTER SERVICES, INC.); ROBINSON AIR CRANE, INC.; WILLIAMS HELICOPTER CORPORATION (PREVIOUSLY SCOTT PAPER CO.); SMITH HELICOPTERS; SOUTHERN HELICOPTER, INC.; SOUTHWEST FLORIDA AVIATION; UTAH STATE UNIVERSITY; WESTERN INTERNATIONAL AVIATION, INC.; and U.S. HELICOPTER, INC: Docket No. 2000-SW-08-AD. Supersedes AD 89-17-03, Amendment 39-6251, Docket No. 88-ASW-33.

Applicability: Bell Helicopter Textron Inc.-manufactured Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P; and Southwest Florida Aviation SW204, SW204HP, SW205, and SW205A-1 helicopters, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless previously accomplished.

To prevent fatigue failure of the main rotor mast assembly (mast) or main rotor trunnion assembly (trunnion), separation of the main rotor system, and subsequent loss of control of the helicopter, accomplish the following:

(a) For the main rotor mast assembly, part number (P/N) 204-011-450-001, -005, -007, -105, or -109:

NOTE 2: The next higher assembly level for the affected P/N's are the 204-040-366 mast assemblies. Check the aircraft records for the appropriate P/N and assembly level.

(1) Create a component history card or equivalent record for the mast within 10 hours time-in-service (TIS).

(2) Determine and record the revised hours TIS to-date as follows:

(i) Review the component history card or equivalent record for the mast and determine the hours TIS for each of the usage type categories (1) through (6) specified in Figure 1.

	Usage Type Category	Hours TIS [A]	Flight Hour Factor	Factored Flight Hours [B]
Military Hours TIS	(1) Hours TIS with a hub spring installed or if installation of a hub spring is unknown.		Multiply by 10	
	(2) All other hours TIS without a hub spring installed that can be verified.		Multiply by 2	
Restricted Category Hours TIS	(3) Hours TIS with a hub spring installed or if the installation of a hub spring is unknown.		Multiply by 10	
	(4) Hours TIS without a hub spring installed when takeoffs plus external load lifts are greater than 44 per hour or when the number of takeoffs plus external load lifts is unknown. [1]		Multiply by 3	
	(5) Hours TIS without a hub spring installed when takeoffs plus external load lifts are greater than 20 per hour and less than or equal to 44 per hour. [1]		Multiply by 2	
	(6) Hours TIS without a hub spring installed when takeoffs plus external load lifts are less than or equal to 20 per hour. [1]		Multiply by 1	
	Total Hours TIS = [3]		Total Factored Flight Hours = [2]	

[1] – For the purposes of this AD, an external load lift is defined as a lift event utilizing a cargo hook.

[2] – The factored flight hour total is the summation of column [B].

[3] – Summation of column [A] must equal the total hours TIS for the mast.

Figure 1

(ii) Multiply the hours TIS for each of the different usage type categories by the flight hour factors specified in Figure 2. Add the factored flight hours in column B to determine the total factored flight hours to-date.

(iii) Record the total factored flight hours on the component history card or equivalent record and use as the revised hours TIS for the mast.

(3) Determine and record the accumulated retirement index number (RIN) to-date as follows:

(i) Multiply the revised hours TIS determined in accordance with paragraph (a)(2) of this AD by the RIN conversion factor specified in Figure 2 to establish the baseline accumulated RIN for the mast.

Rated Engine Horsepower (hp)		1100 hp SLS [1]		1400 hp SLS [1]		1800 hp SLS [1]	
		RIN Conversion Factor	RIN Increase per Takeoff or External Load Lift [2]	RIN Conversion Factor	RIN Increase per Takeoff or External Load Lift [2]	RIN Conversion Factor	RIN Increase per Takeoff or External Load Lift [2]
Mast P/N 204-011-450-001 or -005	Takeoff	50	5	50	15	[3]	[3]
	External Load Lift [2]		10		30		[3]
Mast P/N 204-011-450-007, -105, or -109	Takeoff	20	1	20	2	20	6
	External Load Lift [2]		2		4		12

[1] – Use the RIN penalty for the next highest rated engine hp if rated hp is between the specified values. SLS means Sea Level Standard Day Conditions.

[2] – For the purposes of this AD, an external load lift is defined as a lift event utilizing a cargo hook.

[3] – No FAA approved installation for this combination.

NOTE: The following are the most commonly used engines for the affected helicopters:

1000 hp SLS – Lycoming T53-L-9/11 (UH-1B Standard Configuration)

1272 hp SLS – General Electric T58-6E-3 (UH-1F Standard Configuration)

1400 hp SLS – Lycoming T53-L-13 and 13b (UH-1E, -1H, -1L Standard Configurations)

1800 hp SLS – Lycoming T53-L-703

Figure 2

(ii) Record the RIN on the component history card or equivalent record and use as the accumulated RIN for the mast.

(4) Before further flight, remove from service any mast, P/N 204-011-450-001 or -005, that has 6,000 or more revised hours TIS or 265,000 or more RIN.

(5) Before further flight, remove from service any mast, P/N 204-011-450-007, -105, or -109, that has 15,000 or more revised hours TIS or 265,000 or more RIN.

(6) Inspect the upper and lower snap ring grooves in the damper clamp splined area of mast, P/N 204-011-450-001, -005, -007, -105, or -109, for a minimum radius of 0.020 inches around the entire circumference (See Figures 3 and 4), using a 100x or higher magnification, according to the following schedule:

NOTE 3: The mast serial number (S/N) may include the prefix NFS or N9.

(i) S/N 23002 and prior, with less than 100,000 RIN, before 100,000 RIN.

(ii) S/N 23002 and prior, with 100,000 or more RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(iii) S/N 23003 through 36752, with less than 170,000 RIN, before 170,000 RIN.

(iv) S/N 23003 through 36752, with 170,000 or more RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(7) If any snap ring groove radius is less than 0.020 inches, replace the mast with an airworthy mast before accumulating 100,000 RIN or before further flight if the RIN equals or exceeds 100,000.

(8) Inspect the upper and lower snap ring grooves of the mast, P/N 204-011-450-001, -005, -007, -105 or -109, for a burr (See Figures 3 through 5), using a 200x or higher magnification, according to the following schedule:

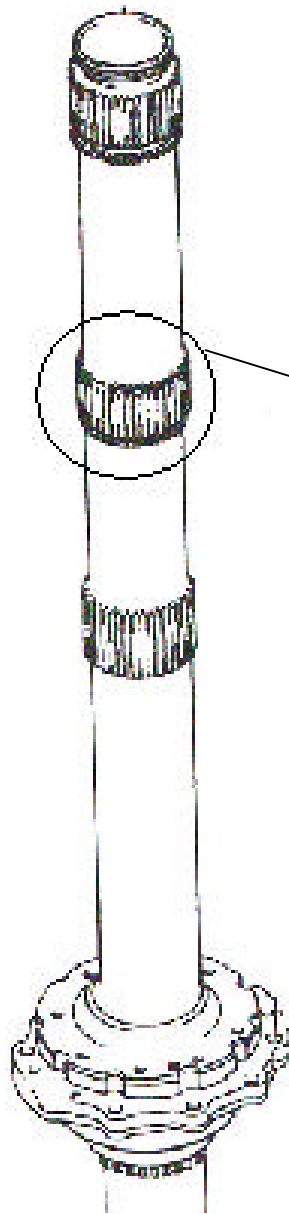
(i) S/N 23002 and prior, with less than 100,000 RIN, before 100,000 RIN.

(ii) S/N 23002 and prior, with 100,000 or more RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(iii) S/N 23003 through 36752, with less than 170,000 RIN, before 170,000 RIN.

(iv) S/N 23003 through 36752, with 170,000 or more RIN, within 10 hours TIS or 500 RIN, whichever occurs first.

(9) If a burr is found in any snap ring groove radius, replace the mast with an airworthy mast before accumulating 170,000 RIN or before further flight if the RIN equals or exceeds 170,000.



Inspect area for:

- At 100x minimum magnification
Minimum radius of 0.020 at the
snap ring groove/spline intersection
- At 200x minimum magnification
Burr in the snap ring groove

See view A-A for detail

View A

Figure 3
Main Rotor Mast

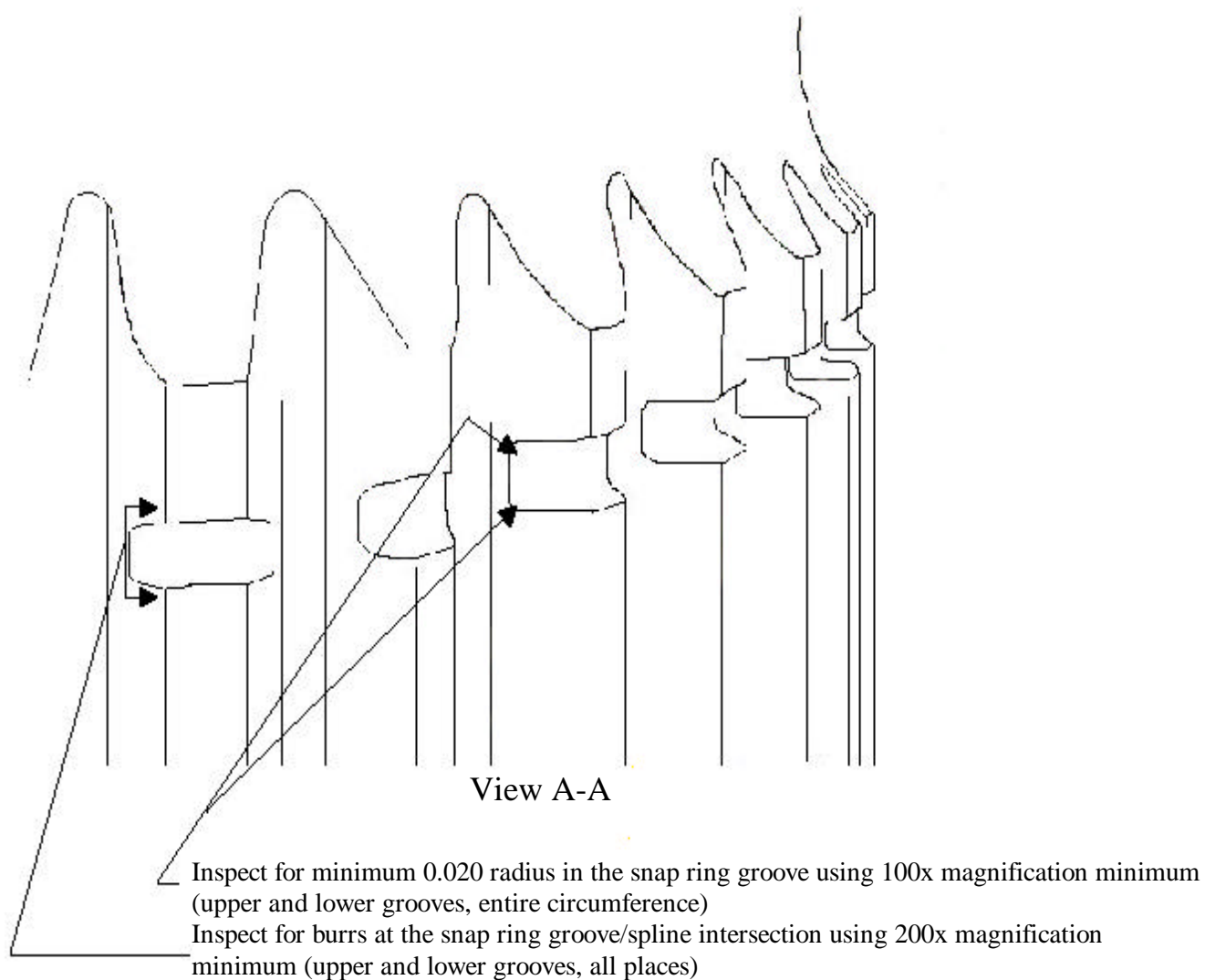
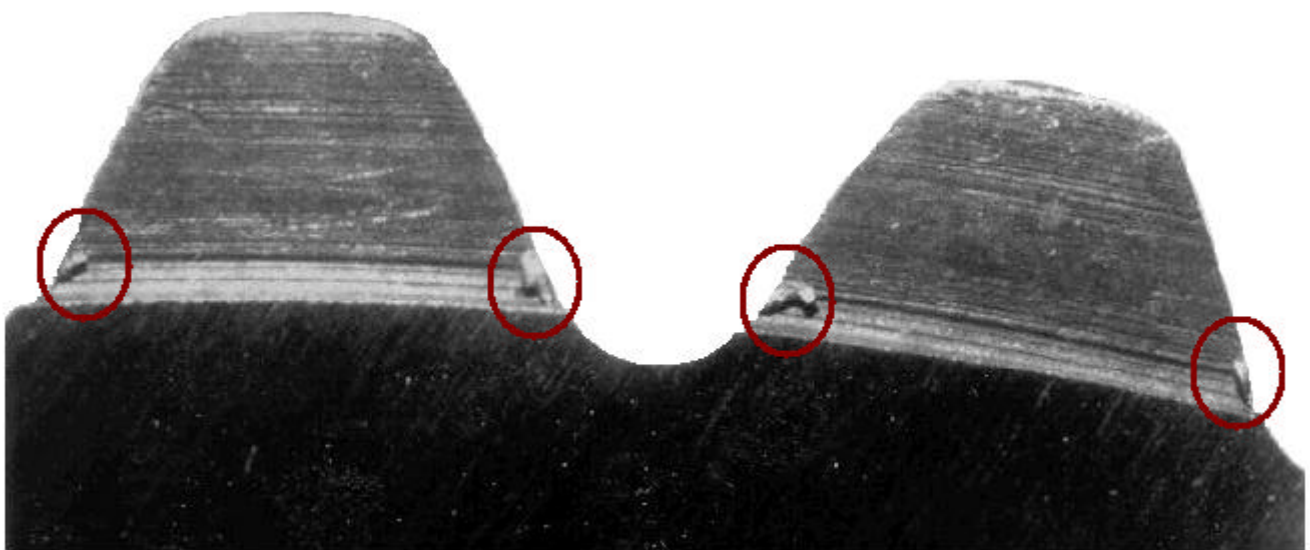


Figure 4
Snap Ring Groove / Spline Intersection



Cutaway View Looking Down From Inside Snap Ring Groove

Typical Burrs at Snap Ring Groove / Spline Intersection

Burrs to be Inspected at 200x Minimum Magnification

Figure 5
Typical Burr at Snap Ring Groove

(10) Thereafter, calculate the accumulated RIN for the mast, P/N 204-011-450-001, -005, -007, -105, or -109, for all future torque events. Increase the accumulated RIN count on the component history card or equivalent record using the RIN values specified in Figure 2 for each takeoff and external load lift.

(11) After accomplishing the requirements of paragraphs (a)(1) and (a)(2) continue to count mast hours TIS. Count 10 hours TIS for each hour TIS that the helicopter is operated with a hub spring installed.

(12) For the mast, P/N 204-011-450-001 or -005, this AD establishes a retirement life of 6,000 hours TIS or 265,000 RIN, whichever occurs first.

(13) For the mast, P/N 204-011-450-007, -105, or -109, this AD establishes a retirement life of 15,000 hours TIS or 265,000 RIN, whichever occurs first.

(b) Within 10 days after completing the inspections required by this AD, complete the AD compliance inspection report form, Appendix 1, with the requested information, and send it to the attention of the Manager, Rotorcraft Certification Office, Federal Aviation Administration, Fort Worth, Texas, 76193-0170, USA. Reporting requirements have been approved by the Office of Management and Budget and assigned OMB control number 2120-0056.

(c) For the main rotor trunnion assembly, P/N 204-011-105-001:

(1) Remove any trunnion with 14,900 or more hours TIS from service within the next 100 hours TIS. If the TIS cannot be determined, enter 900 hours for each year from the date the trunnion was installed.

(2) Remove any trunnion with less than 14,900 hours TIS from service at or before 15,000 hours TIS. If the TIS cannot be determined, enter 900 hours for each year from the date the trunnion was installed.

NOTE 4: The intent of paragraph (c) is to continue the requirements of AD 89-17-03 for the trunnion.

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Rotorcraft Certification Office, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Rotorcraft Certification Office.

NOTE 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Rotorcraft Certification Office.

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(f) Emergency AD 2000-08-53, issued April 26, 2000, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Michael Kohner, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Certification Office, Fort Worth, Texas 76193-0170, telephone (817) 222-5447, fax (817) 222-5783.

Issued in Fort Worth, Texas, on April 26, 2000.

Henry A. Armstrong, Manager, Rotorcraft Directorate, Aircraft Certification Service.

APPENDIX 1

**AD COMPLIANCE INSPECTION REPORT FORM
P/N 204-011-450-001/-005/-007/-105/-109 MAIN ROTOR MAST**

Complete the following information and mail or fax this form to:

Manager, Rotorcraft Certification Office
Federal Aviation Administration
Fort Worth, Texas, 76193-0170, USA
Fax: 817-222-5783

Operator Name:

Aircraft Registration No.:

Helicopter Model:

Helicopter S/N:

Mast P/N:

Mast S/N:

Mast RIN:

Mast Total TIS:

Inspection Results:

- 1. Were any radii during inspection of this mast determined to be less than 0.020 inches? If yes, what was the dimension measured?**
- 2. Was a burr found in the inspected snap ring grooves?**
- 3. Who performed this inspection?**
- 4. Provide any other comments:**